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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,415	11/20/2003	Thomas L. Drabenstott	800.0131	9666

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EXAMINER	
TREAT, WILLIAM M	
ART UNIT	PAPER NUMBER
2181	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/718,415	DRABENSTOTT ET AL.	
	Examiner	Art Unit	
	William M. Treat	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-9,49-52 and 56-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-8,49-52,56-58 and 60-73* is/are rejected.

7)☒ Claim(s) *9 and 59* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 6-9, 49-52, and 56-73 are presented for examination.

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 49 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 20 of prior U.S. Patent No. 6,760,831. This is a double patenting rejection.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

5. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

6. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 6-9, 48-52, and 56-73 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 20 of U.S. Patent No. 6,760,831. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 50-52 were submitted as dependents of patented claim 20 in applicants' original parent application 09/238,446 and were part of a restricted group of claims which included applicants' current claims 6-9. Applicants'

new claims 56-73 also seem to be directed to that same Group II identified as a VLIW array processor.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 6-8 and 56-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Mahlke et al. (Effective Compiler Support for Predicated Execution Using The Hyperblock).

10. Mahlke taught the invention of exemplary claim 6 including a method of supporting conditional execution comprising: providing general purpose flag bits (ACFs) that contain reduced condition information that is used for branching or conditional execution; and specifying and setting a condition in ACFs based upon a condition code specification encoded in an instruction generating a condition (Sections 2, 2.2, and Figs. 2, 3, and 7). The predicate register file is the functional equivalent of ACFs. Note the conditional execution and specifying and setting a condition in ACFs based upon a condition code specification encoded in an instruction generating a condition as shown in Figs. 3 and 7 and reduced condition information as shown in Fig. 7. As an additional note the examiner has given no weight to applicants' claim preamble in that nothing in the body of applicants' claims seems predicated upon it. Also, in Mahlke's Abstract and Introduction he makes clear his teachings are applicable to VLIW processors.

11. As to claim 7, Mahlke taught instructions that execute conditionally which do not do not affect the ACFs. For instance, lines 6 and 7 of Fig. 7 show a move instruction and a subtraction instruction which execute conditionally but do not affect the predicate registers. While Mahlke does not teach **all** instructions which execute conditionally do not affect the ACFs, applicants have not made clear such a distinction in their claim language. Nor, would such a distinction read over the art since, as one of ordinary skill, Mahlke could certainly remove functionality from his system so that **all** instructions which execute conditionally do not affect the ACFs.

12. As to claim 8, Mahlke taught instructions that affect the ACFs which execute unconditionally. For instance, lines 2 and 3 of Fig. 7 show a predicate-not-equal instruction and a predicate-equal instruction which set predicate values and execute unconditionally. While Mahlke does not teach **all** instructions that affect the ACFs execute unconditionally, applicants have not made clear such a distinction in their claim language. Nor, would such a distinction read over the art since, as one of ordinary skill, Mahlke could certainly remove functionality from his system.

13. As to claims 56-58, they fail to teach or define over rejected claims 6-8.

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 60-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. In claim 60 it is unclear what the antecedent basis is for "the processing element" and how only one ACF latch (i.e., one bit) stores the previous state for multiple execution units and feeds it back to them or is it one ACF latch per execution unit feeding back to their respective execution units? Dependent claims 61-68 suffer from the same ambiguity.

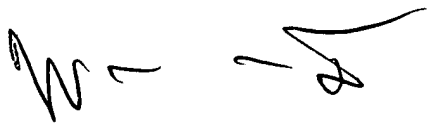
17. Claims 69-73 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

18. In claim 69 it is unclear what the antecedent basis is for "the processing element" and, in addition, applicants seem to have omitted the essential element of the ACF latch as the repository of the previous state. Also, the last line of the claim reads as if the previous state might be stored, once again, as opposed to the ACF remaining unchanged. Dependent claims 70-73 suffer from the same ambiguity.

19. Claims 9 and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. Any inquiry concerning this communication should be directed to William M. Treat at telephone number (571) 272-4175. The examiner works at home on Wednesdays but may normally be reached on Wednesdays by leaving a voice message using his office phone number. The examiner also works a flexible schedule but may normally be reached in the afternoon and evening on three of the four remaining weekdays.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WILLIAM M. TREAT
PRIMARY EXAMINER